

Prentiss (D. W.)

[Reprinted from THE MEDICAL NEWS, July 1, 1893.]

SARCOMA OF THE RIGHT LUNG DIAGNOSTICATED DURING LIFE BY THE USE OF THE MICROSCOPE; SECONDARY TO SARCOMA OF THE TESTICLE WHICH HAD BEEN REMOVED FOUR YEARS PREVIOUSLY.¹

✓
BY D. W. PRENTISS, M.D.,
OF WASHINGTON, D. C.

W. H. H. was fifty-one years old. His parents had been healthy. His father was killed in a saw-mill. His mother died of pneumonia, aged sixty-three years. There was no history of malignant disease or of tuberculosis in the family. The man's health had been failing for five years.

When a child he injured his testicle, and again later when riding; but this never troubled him. Five years before his last illness the testicle was again hurt, when it became inflamed and the man was confined to bed for some time, suffering great pain. After this he had to exercise great care of the organ. The testicle was removed four years previously to death by Dr. J. Ford Thompson, who pronounced it sarcomatous.

Pulmonary symptoms appeared in August, 1890. The man had had a very profuse hemorrhage from the bowels in January, 1890. He complained of great pain in the right side over the liver. There was slight cough and bloody sputa, though no large hemorrhage from the

¹ Read before the Association of American Physicians, at Washington, D. C., May 31, 1893.



lungs had occurred. The sputa were frothy, stained with blood, and occasionally mixed with a fibrinous substance.

I first saw the patient March 29, 1891. He had been under the care of a sectarian practitioner, and had been treated for pulmonary tuberculosis for about nine months.

When I saw him he was greatly emaciated; suffering with pain in the right side of the chest; and coughing and expectorating bloody sputa. At first sight he presented all the appearances of tuberculosis. Physical examination, however, showed a condition evidently not due to pulmonary tuberculosis. The left lung appeared normal on auscultation and percussion. The right lung was solid throughout nearly its entire extent. Air could only be heard to enter the lung in two small areas, one near the apex and another low down in front in the lower lobe. At these points at the autopsy were found respectively a little normal lung-tissue and a small cavity resulting from the breaking down of the diseased tissue.

The sputum was sent to Dr. Theobald Smith for examination for tubercle-bacilli, but none were found.

The principal symptoms in the case were the cough and expectoration, great pain in the side from the pleuritic extension of the disease, extreme emaciation and exhaustion. Decubitus was mostly left-sided. As the case progressed bedsores developed over the hips and sacrum, which added greatly to the patient's suffering.

Treatment was symptomatic—excepting that at the first the man was put on a mixed specific treatment of potassium iodid and mercuric chlorid. There was no clinical evidence of specific disease, but upon a suspicion that there might possibly be a syphilitic taint this treatment was tried. It was continued for about three weeks without effect. Other treatment consisted of morphine (to relieve pain), stimulants, and tonics.

The right side of the chest was enlarged and the intercostal spaces obliterated.

Dr. J. Ford Thompson was called in consultation and the side aspirated, to determine if there was liquid in the pleural cavity. None was found, but instead, only blood and a quantity of substance looking like partially organized fibrin was drawn out, evidently from the lung-substance.

This substance was sent to Dr. Theobald Smith for microscopic examination, and reported by him to be composed of masses of sarcoma cells.

Up to this time malignant disease of the lung had not been thought of, but the diagnosis now became clear, especially when inquiry brought out the fact that a sarcomatous testicle had been removed four years before. The patient died of exhaustion, August 21, 1891, one year after the first symptoms of lung-disease developed.

The autopsy was made four and a half hours after death by Dr. Robert E. Edes.

Emaciation was most extreme.

The whole right lung was sarcomatous. There was a pus-cavity at the lower border containing about two ounces of pus. Nearly the whole lung was bound to the chest-wall and to the diaphragm by strong adhesions. The fourth, fifth, sixth, and seventh ribs were eroded posteriorly by pressure. The upper part of the right lung contained several patches of healthy tissue anteriorly, but the remainder of the lung was replaced by sarcomatous tissue, old, hardened blood-clots, and fibrin. The left lung was healthy, except in the upper part of the lower lobe, which was solidified and grayish in appearance. The right kidney was normal; the left kidney congested, otherwise normal. The spleen was small, but normal. The intestines were normal. There was no enlargement of the lymphatic glands of the abdomen. The liver was normal. The gall-bladder was full of bile. The heart was small and flabby.

The accompanying letter gives the results of the microscopic examination :

DR. D. W. PRENTISS.

MY DEAR DOCTOR : Microscopic examination of sections of the supposed sarcomatous testicle and lung proves the growth to be the same in each organ. The sarcoma is of the variety known as lympho-sarcoma. The sections will not take an intense nuclear staining, which is doubtless due to slight post-mortem degeneration.

Yours truly,

W. M. GRAY,

Microscopist, Army Medical Museum.

I have been influenced to report this case on account of its comparative rarity, especially in private practice, and also as illustrating the value and importance of the microscope in diagnosis.

As to its rarity, this is the only case I have seen in a private practice of thirty years ; although hospital statistics show malignant disease of the lungs not to be uncommon.

When only one lung is affected it is more frequently the right, in the proportion of 2 to 1.

Walshe records 29 cases of primary malignant disease of the lung, in only 18 cases of which one lung was affected, and of these 18 the right 13 times and the left 5 times. Kohler reports 31 cases, one lung being affected in only 23 ; the right 15 times ; the left 8 times. The condition is more common in men than in women. Hasse reports 22 cases ; 17 in men, 5 in women. (*Ziems-sen's Cyclopedia*, vol. v, p. 436.)

Osler, however, states that malignant disease of the lung is more common in women.

Malignant disease of the lung is principally to be differentiated from tuberculosis. The possibility of syphilis should not be overlooked.

DIFFERENTIATION FROM TUBERCULOSIS.

TUBERCULOSIS.	MALIGNANT DISEASE
Begins usually at apex of left lung, and extends to right lung.	Begins usually in middle lobe of right lung.
Sputa muco-purulent, nummular.	Sputa gelatiniform, mixed with pus and blood, "prune-juice."
Cavities.	Intense dulness over whole lung.
	Swelling of lymphatic glands more marked.
Tuberculous diathesis.	Previous history of malignant disease, as in breasts or testicles.
Tubercle-bacilli.	Sarcomatous or carcinomatous cells.

The only other condition that produces the same extent of intense dulness in the lung is a large collection of fluid in the pleural cavity. This is recognized, of course, by aspiration.

As to syphilis of the lung, its extreme rarity alone is almost enough to set it aside.

Tuberculosis of the lung in a syphilitic subject is common enough—in fact, a distinguished syphilographer (Dr. Taylor, of New York) stated recently that the two diseases go hand-in-hand; that syphilis precipitates pulmonary tuberculosis in a predisposed patient. But syphilis of the lung, as a distinct form of disease, does, however, exist, many cases having been reported, and the early symptoms are much like those of malignant disease of the lungs. The diagnosis may be determined by the therapeutic test.

Finally, it is worth noticing that a man could live, as this one did for months, with such an extent of disease within the chest-walls.

